

ABSTRACT OF THE DISCLOSURE

A thickness servo system using optical aberrations is provided. This system includes an objective lens facing a recording layer covered with a transparent layer accompanying thickness irregularity, a laser source for supplying a laser beam to the recording layer through the objective lens and transparent layer, a photodetector for detecting the laser beam reflected by the recording layer through the transparent layer and objective lens, and a thickness irregularity correction section which is placed in a laser beam optical path between the laser source and the recording layer to correct an optical aberration of the objective lens due to the thickness irregularity of the transparent layer. In this servo system, the photodetector detects an aberration amount corresponding to thickness irregularity, and the thickness irregularity correction section operates to minimize the detected aberration amount. The thickness irregularity of the transparent layer can also be calculated from the detected aberration amount.

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